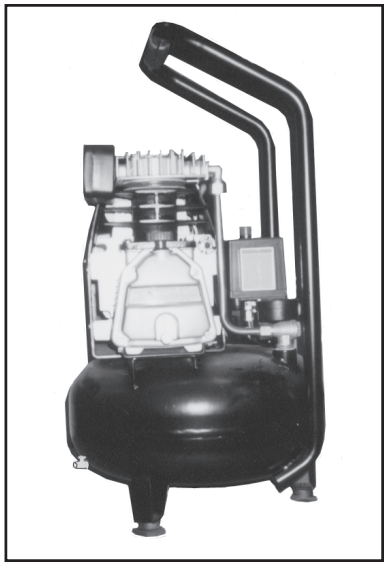
CENTRAL PNEUMATIC ®

4 GALLON, 2 HP PEAK PANCAKE COMPRESSOR

Model 90221

OPERATING INSTRUCTIONS



Due to continuing improvements, actual product may differ slightly from the product described herein.

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For technical questions, please call 1-800-444-3353.

Revised cover page 11/04

PRODUCT SPECIFICATIONS

ITEM	DESCRIPTION
Electrical Requirements	115V/60Hz/1-3/4 HP Rated Motor, 14 Amps/ 3450 RPM, Dual Capacitor Motor Equipped w/Overload Reset Button
Air Tank Capacity	4 Gallons
Maximum Air Pressure	125 PSI
Displacement SCFM	5.2 SCFM @ 40 PSI/4.2 SCFM @ 90 PSI
Automatic Shut Off	Shut Off at 115 PSI / Starts at 90 PSI
Pump Style	Single Stage
Overall Dimensions	15” L x 12” W x 24-1/4” H
Weight	46 Lbs.

221568

SAVE THIS MANUAL

You will need this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures, parts list and assembly diagram. Keep your invoice with this manual. Write the invoice number on the inside of the front cover. Keep this manual and invoice in a safe and dry place for future reference.

GENERAL SAFETY RULES

⚠ WARNING!

READ AND UNDERSTAND ALL INSTRUCTIONS
Failure to follow all instructions listed below may result in electric shock, fire, and/or serious injury.
SAVE THESE INSTRUCTIONS

WORK AREA

1. **Keep your work area clean and well lit.** Cluttered benches and dark areas invite accidents.

2. **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust.** Power tools create sparks which may ignite the dust or fumes.

3. **Keep bystanders, children, and visitors away while operating a power tool.** Distractions can cause you to lose control. Protect others in the work area from debris such as chips and sparks. Provide barriers or shields as needed.

ELECTRICAL SAFETY

4. **Grounded tools must be plugged into an outlet properly installed and grounded in accordance with all codes and ordinances. Never remove the grounding prong or modify the plug in any way. Do not use any adapter plugs. Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded.** If the tools should electrically malfunction or break down, grounding provides a low resistance path to carry electricity away from the user.

5. **Double insulated tools are equipped with a polarized plug (one blade is wider than the other). This plug will fit in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install a polarized outlet. Do not change the plug in any way.** Double insulation ⧈ eliminates the need for the three wire grounded power cord and grounded power supply system.

6. **Avoid body contact with grounded surfaces such as pipes, radiators, ranges, and refrigerators.** There is an increased risk of electric shock if your body is grounded.

7. **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.

8. **Do not abuse the Power Cord. Never use the Power Cord to carry the tools or pull the Plug from an outlet. Keep the Power Cord away from heat, oil, sharp edges, or moving parts. Replace damaged Power Cords immediately.** Damaged Power Cords increase the risk of electric shock.

PERSONAL SAFETY

9. **Stay alert. Watch what you are doing, and use common sense when operating a power tool. Do not use a power tool while tired or under the influence of drugs, alcohol, or medication.** A moment of inattention while operating power tools may result in serious personal injury.

10. **Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep your hair, clothing, and gloves away from moving parts.** Loose clothes, jewelry, or long hair can be caught in moving parts.

11. **Avoid accidental starting. Be sure the Power Switch is off before plugging in.** Carrying power tools with your finger on the Power Switch, or plugging in power tools with the Power Switch on, invites accidents.

12. **Remove adjusting keys or wrenches before turning the power tool on.** A wrench or a key that is left attached to a rotating part of the power tool may result in personal injury.

13. **Do not overreach. Keep proper footing and balance at all times.** Proper footing and balance enables better control of the power tool in unexpected situations.

14. **Use safety equipment. Always wear eye protection.** Dust mask, non-skid safety shoes, hard hat, or hearing protection must be used for appropriate conditions.

TOOL USE AND CARE

15. **Do not force the tool. Use the correct tool for your application.** The correct tool will do the job better and safer at the rate for which it is designed.

16. **Do not use the power tool if the Power Switch does not turn it on or off.** Any tool that cannot be controlled with the Power Switch is dangerous and must be replaced.

17. **Disconnect the Power Cord Plug from the power source before making any adjustments, changing accessories, or storing the tool.** Such preventive safety measures reduce the risk of starting the tool accidentally.

18. **Store idle tools out of reach of children and other untrained persons.** Tools are dangerous in the hands of untrained users.

19. **Maintain tools with care. Keep cutting tools sharp and clean.** Properly maintained tools with a sharp cutting edge are less likely to bind and are easier to control. Do not use a damaged tool. Tag damaged tools “Do not use” until repaired.

20. **Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the tool’s operation. If damaged, have**

the tool serviced before using. Many accidents are caused by poorly maintained tools.

21. **Use only accessories that are recommended by the manufacturer for your model.** Accessories that may be suitable for one tool may become hazardous when used on another tool.

SERVICE

22. **Tool service must be performed only by qualified repair personnel.** Service or maintenance performed by unqualified personnel could result in a risk of injury.

23. **When servicing a tool, use only identical replacement parts. Follow instructions in the *"Inspection, Maintenance, And Cleaning"* section of this manual.** Use of unauthorized parts or failure to follow maintenance instructions may create a risk of electric shock or injury.

GROUNDING

⚠ WARNING!

Improperly connecting the grounding wire can result in the risk of electric shock. Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded. Do not modify the power cord plug provided with the tool. Never remove the grounding prong from the plug. Do not use the tool if the power cord or plug is damaged. If damaged, have it repaired by a service facility before use. If the plug will not fit the outlet, have a proper outlet installed by a qualified electrician.

GROUNDED TOOLS: TOOLS WITH THREE PRONG PLUGS

1. Tools marked with "Grounding Required" have a three wire cord and three prong grounding plug. The plug must be connected to a properly grounded outlet. If the tool should electrically malfunction or break down, grounding provides a low resistance path to carry electricity away from the user, reducing the risk of electric shock. **(See Figure A, next page.)**

2. The grounding prong in the plug is connected through the green wire inside the cord to the grounding system in the tool. The green wire in the cord must be the only wire connected to the tool's grounding system and must never be attached to an electrically "live" terminal. **(See Figure A.)**

3. Your tool must be plugged into an appropriate outlet, properly installed and grounded in accordance with all codes and ordinances. The plug and outlet should look like those in the following illustration. **(See Figure A.)**

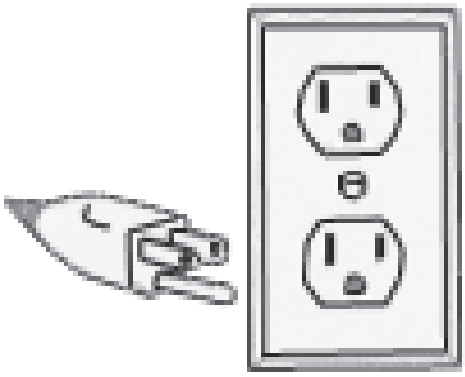


FIGURE A

DOUBLE INSULATED TOOLS: TOOLS WITH TWO PRONG PLUGS

4. Tools marked “Double Insulated” do not require grounding. They have a special double insulation system which satisfies OSHA requirements and complies with the applicable standards of Underwriters Laboratories, Inc., the Canadian Standard Association, and the National Electrical Code. **(See Figure B.)**

5. Double insulated tools may be used in either of the 120 volt outlets shown in the following illustration. **(See Figure B.)**

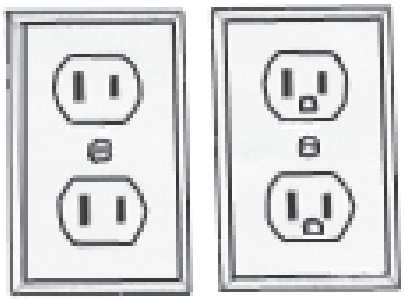


FIGURE B

SYMBOLOGY

	Double Insulated
	Canadian Standards Association
	Underwriters Laboratories, Inc.
V ~	**Volts Alternating Current**
A	**Amperes**
no **xxxx/min.**	**No Load Revolutions per Minute (RPM)**

SPECIFIC SAFETY RULES

1. **Maintain a safe working environment.** Keep the work area well lit. Make sure there is adequate surrounding workspace. Always keep the work area free of obstructions, grease, oil, trash, and other debris. Do not use this product in areas near flammable chemicals, dusts, and vapors.

2. **Maintain labels and nameplates on the Air Compressor.** These carry important information. If unreadable or missing, contact Harbor Freight Tools for a replacement.

3. **Use eye and hearing protection.** Always wear ANSI-approved safety impact eye goggles and hearing protectors when using this product.

4. **Do not allow children to use or play with this product.**

5. **Store idle equipment.** When not in use, tools and equipment should be stored in a dry location to inhibit rust. Always lock up tools and equipment, and keep out of reach of children.

6. **Do not use this product if under the influence of alcohol or drugs.** Read warning labels on prescriptions to determine if your judgement or reflexes are impaired while taking drugs. If there is any doubt, do not attempt to use this product.

7. **Make sure to fill the Air Compressor with a premium quality, 30-weight, non-detergent, compressor oil before each use.** Running the Air Compressor with no oil or low oil will cause damage to the equipment and void the warranty.

8. **When adding oil, make sure to unscrew (do not pull) the Dip Stick (part #69) out.**

9. **Drain the Air Compressor's Tank (part #55) every day.** Do not allow moisture to build up inside the Tank. Do not open the Tank Drain Valve (part #56) so that more than four threads are showing.

10. **Avoid injury.** Never direct the Air Outlet (part #43) at people or animals.

11. **Do not alter or remove the factory sealed Pressure Relief Valve (part #50).**

12. **Dress properly.** Do not wear loose clothing or jewelry as they can be caught in moving parts. Wear restrictive hair covering to contain long hair.

13. **Do not overreach.** Keep proper footing and balance at all times. Do not reach over or across running machines.

15. **Industrial applications must follow OSHA requirements.**

16. **Maintain this product with care.** Keep this product clean for better and safer performance.

17. **Maintenance:** For your safety, service and maintenance should be performed regularly by a qualified technician.

18. **Check for damaged parts.** Before using this product, carefully check that it will operate properly and perform its intended function. Check for damaged parts and any other conditions that may affect the operation of this product. Replace or repair damaged or worn parts immediately.

19. **Replacement parts and accessories:** When servicing, use only identical replacement parts. Only use accessories intended for use with this product.

20. **Use the right tool or attachment for the job.** Do not attempt to force a small tool or attachment to do the work of a larger industrial tool or attachment. There are certain applications for which this product was designed. It will do the job better and more safely at the rate for which it was intended. Do not modify this product, and do not use this product for a purpose for which it was not intended.

21. **To extend the life of your air tools and equipment:** It is recommended to install a water filter and oiler (available from Harbor Freight Tools) in series with the Air Outlet Valve (part #43) of the Air Compressor.
(See Figure C, next page.)

22. **WARNING!** People with pacemakers should consult their physician(s) before using this product. Operation of electrical equipment in close proximity to a heart pacemaker could cause interference or failure of the pacemaker.

23. **WARNING!** The warnings, precautions, and instructions discussed in this manual cannot cover all possible conditions and situations that may occur. The operator must understand that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

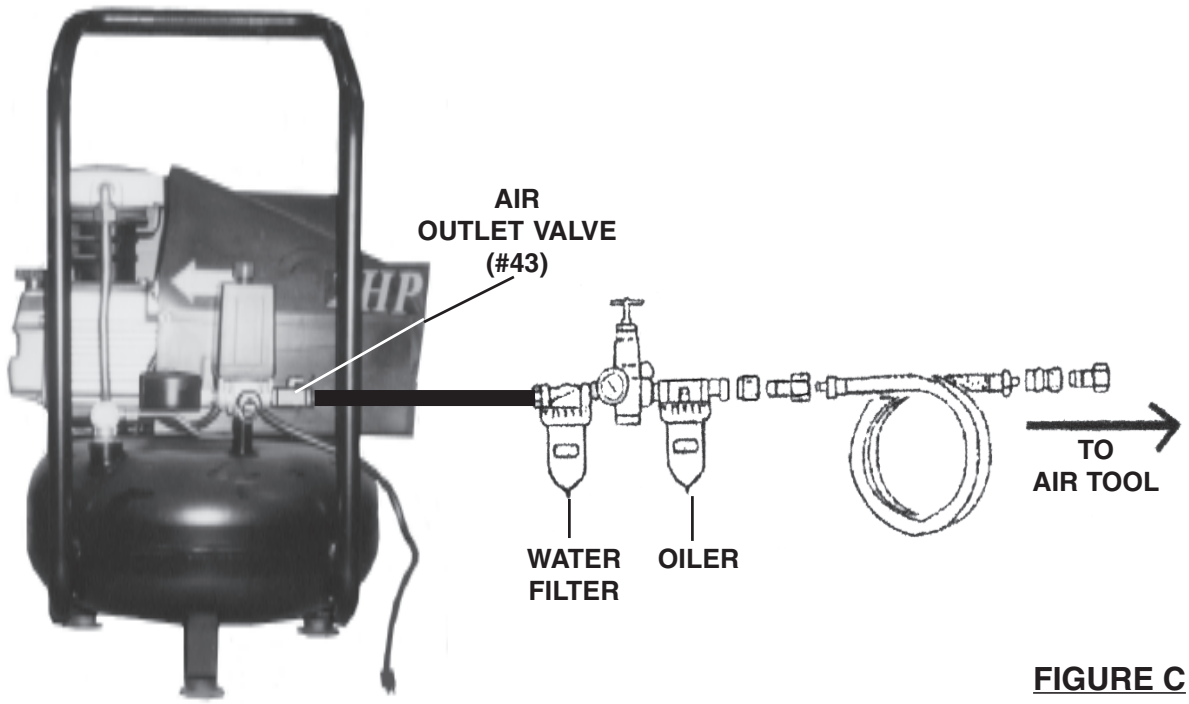


FIGURE C

UNPACKING

When unpacking, check to make sure all the parts shown on the **Parts List on pages 13 and 14** are included. If any parts are missing or broken, please call Harbor Freight Tools at the number shown on the cover of this manual as soon as possible.

OPERATING INSTRUCTIONS

NOTE: For additional information regarding the parts mentioned in the following pages, refer to the **Assembly Diagram on page 15.**

1. **IMPORTANT! Always fill the Air Compressor with a premium quality,**

30-weight, non-detergent, compressor oil (not included) before each use. Add 6-3/4 ounces of oil to the oil tank. Running the Air Compressor with no oil or low oil will cause damage to the equipment and void the warranty. To add oil remove the Crankcase Oil Cover #70 and fill up the oil reservoir. To check the level of oil, look at the Oil Level Window #67A. The oil level should always be at the maximum. *Make sure not to overfill.* **(See Figure D.)**

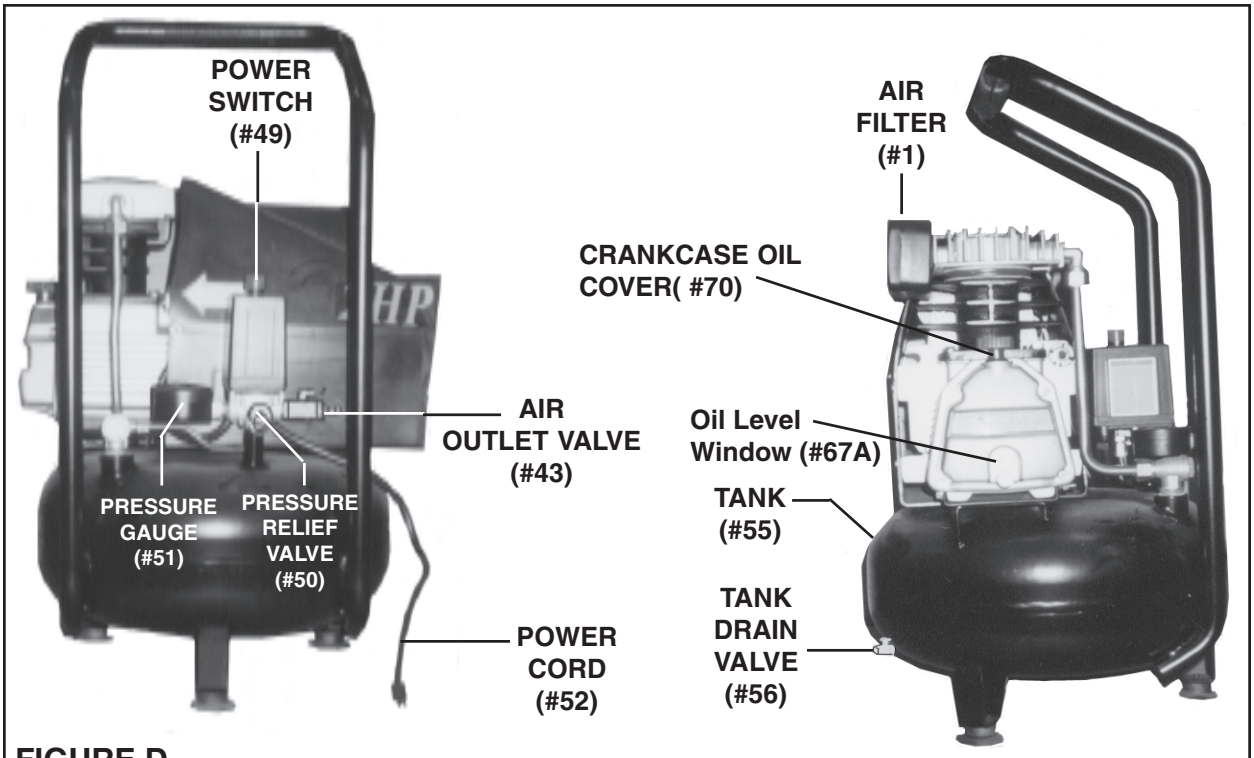


FIGURE D

2. Turn the Air Outlet Valve (part #43) to its **CLOSED** position. Then connect a high pressure air hose (not included) equipped with a *quick connector* to the Air Outlet Valve. If using a water filter and oiler in series with the Air Outlet Valve of the Air Compressor, connect the other end of the air hose to the water filter and oiler and connect the water filter and oiler to the air tool being used. If **not** using a water filter and oiler, squirt several drops of air tool oil into the air intake plug of the air tool. Then, connect the other end of the air hose directly from the Air Outlet Valve of the Air Compressor to the air tool. **(See Figures C, D, and E.)**

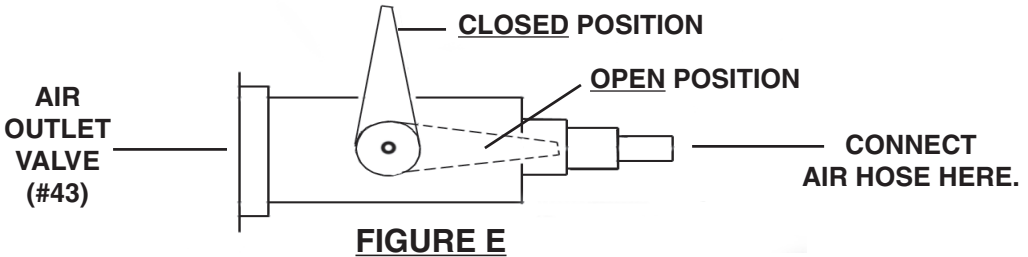


FIGURE E

REV 02/04; 04/04; 04/06

3. Plug the Power Cord (part #52) into the nearest 115 volt, grounded, electrical outlet. **(See Figure D.) Always use a 115V electrical source (±10% maximum variation).**

4. Check to make sure the Tank Drain Valve (part #56) is closed. **(See Figure D.)**

5. Turn on the Air Compressor by pulling **UP** on the "On/Off" Power Switch (part #49). **(See Figure D.)**

6. Allow the Air Compressor to build up to at least 90 PSI as indicated on the Pressure Gauge (part #51). When the air pressure reaches 90 PSI, open the Air Outlet Valve (part #43) to allow the air hose and air tool to become pressurized. **(See Figures D, and E.)**

7. As long as the "On/Off" Power Switch (part #49) is in its **ON** position the operation of the Air Compressor is automatic, controlled by an internal pressure switch. The Air Compressor will turn on automatically when the air pressure drops to 90 PSI, and will turn off automatically when the air pressure reaches 115 PSI. **IMPORTANT:** The internal pressure switch is adjustable, but changes to the air pressure levels should not be done. Any change to the automatic pressure levels will cause additional stress on the motor which may result in shortened motor life and will void the warranty.

8. **NOTE:** If it is necessary to quickly *depressurize* the Air Compressor, turn off the Air Compressor by pushing **DOWN** on the "On/Off" Power Switch (part #49). Then, pull **OUT** on the ring on the Pressure Relief Valve (part #50) to quickly release stored air pressure. **(See Figure D.)**

9. When finished using the Air Compressor, turn it off by pushing **DOWN** on the "On/Off" Power Switch (part #49). Unplug the Power Cord (part #52) from its electrical outlet. Squeeze the trigger on the air tool being used to release all stored air pressure from the system, and disconnect the air hose and air tool from the Air Compressor. Then, open the Tank Drain Valve (part #56) to release all remaining compressed air from the Tank (part #55). **(See Figures C and D.)**

10. **NOTE:** The Air Compressor is equipped with an internal overload device. Should the Air Compressor overheat while in use, the machine will automatically shut down. If this happens, push **DOWN** on the "On/Off" Power Switch (part #49). Wait five to ten minutes. Press the Overload Protector Button (part #27). Then, pull **UP** on the "On/Off" Power Switch to restart the Air Compressor .
(See Figure F, next page.)

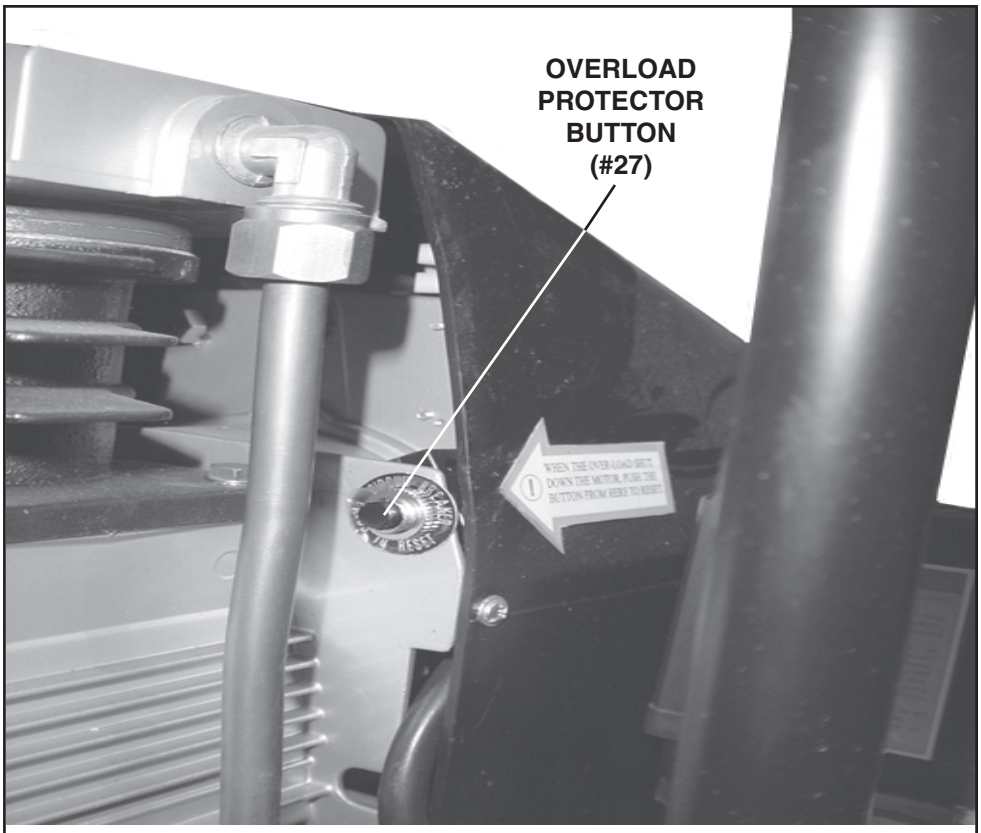


FIGURE F

INSPECTION AND MAINTENANCE

1. **WARNING! Always unplug the Air Compressor from its electrical outlet before performing any inspection, maintenance, or cleaning.**

2. **Before each use:** Inspect the general condition of the Air Compressor. Check for misalignment or binding of moving parts, cracked or broken parts, damaged wiring, damaged air hose, and any other condition that may affect its safe operation. If abnormal noise or vibration occurs, have the problem corrected before further use. **Do not use damaged equipment.**

3. **Daily:** Purge the Tank (part #55) daily of all air and moisture to prevent corrosion. To do so, unscrew the Tank Drain Valve (part #56) two to three turns. **Do not unscrew the Tank Drain Valve more than three turns.** When all the air pressure and moisture is released from the Tank, retighten the Tank Drain Valve. **(See Figure E.)**

4. Store the Air Compressor in a clean, dry, location.

PARTS LIST

PART#	DESCRIPTION	QTY	PART#	DESCRIPTION	QTY
1	Air Filter	1	36B	Bolt	2
2	Spring Washer	2	37A	Centrifugal Switch Seat	1
3	In-Six Angle Bolt	2	37B	Centrifugal Switch Body	1
4	Bolt	4	37C	Bolt	1
5	Cylinder Head	1	38	Centrifugal Switch Cover	1
6	Cylinder Head Washer	1	39	Bolt	4
7	Valve Seat	2	40	Motor Fan	1
8	Valve Plate	2	41	Shaft Retaining Ring	2
9	AL. Washer	1	42	Bolt	3
10	Cylinder Up Washer	1	43	Air Outlet Valve	1
11A	Piston Air Ring	2	49	Power Switch	1
11B	Piston Oil Ring	1	50	Pressure Relief Valve	1
12	Retaining Ring In Hole	2	51	Pressure Gauge	1
13	Piston Pin	1	52	Power Cord	1
14	Piston	1	53	Rubber Foot Pad	4
15	Connect Rod	1	54	Bolt	4
16	In-Six Angle Bolt	4	54A	Flat Washer	4
17	Cylinder	1	55	Tank	1
18	Cylinder Down Washer	1	56	Tank Drain Valve	1
19	Nut	1	57	Handle Cover	1
20	Crankcase	1	60	Unload Copper Tube Assy	1
21	Saw Washer	1	60A	Unload Copper Tube	1
22	Flat Washer	1	60B	Unload Pipe Nut	1
23	Running Capacitor	1	61	Check Valve	1
24	Starting Capacitor	1	62	Exhaust Copper Tube Assy	1
25	Crankshaft	1	62A	Exhaust Copper Tube	1
26	Bolt	1	62B	Exhaust Nut	1
26A	Spring Washer	1	62C	Tight Ring	2
27	Overload Protector	1	63	Exhaust Elbow	1
27A	Tight Washer	1	64	Bolt	2
28	Shaft Oil Seal	1	65	O-Ring	1
28A	Special Washer	1	66	Bolt	1

PARTS LIST (CONTINUED)

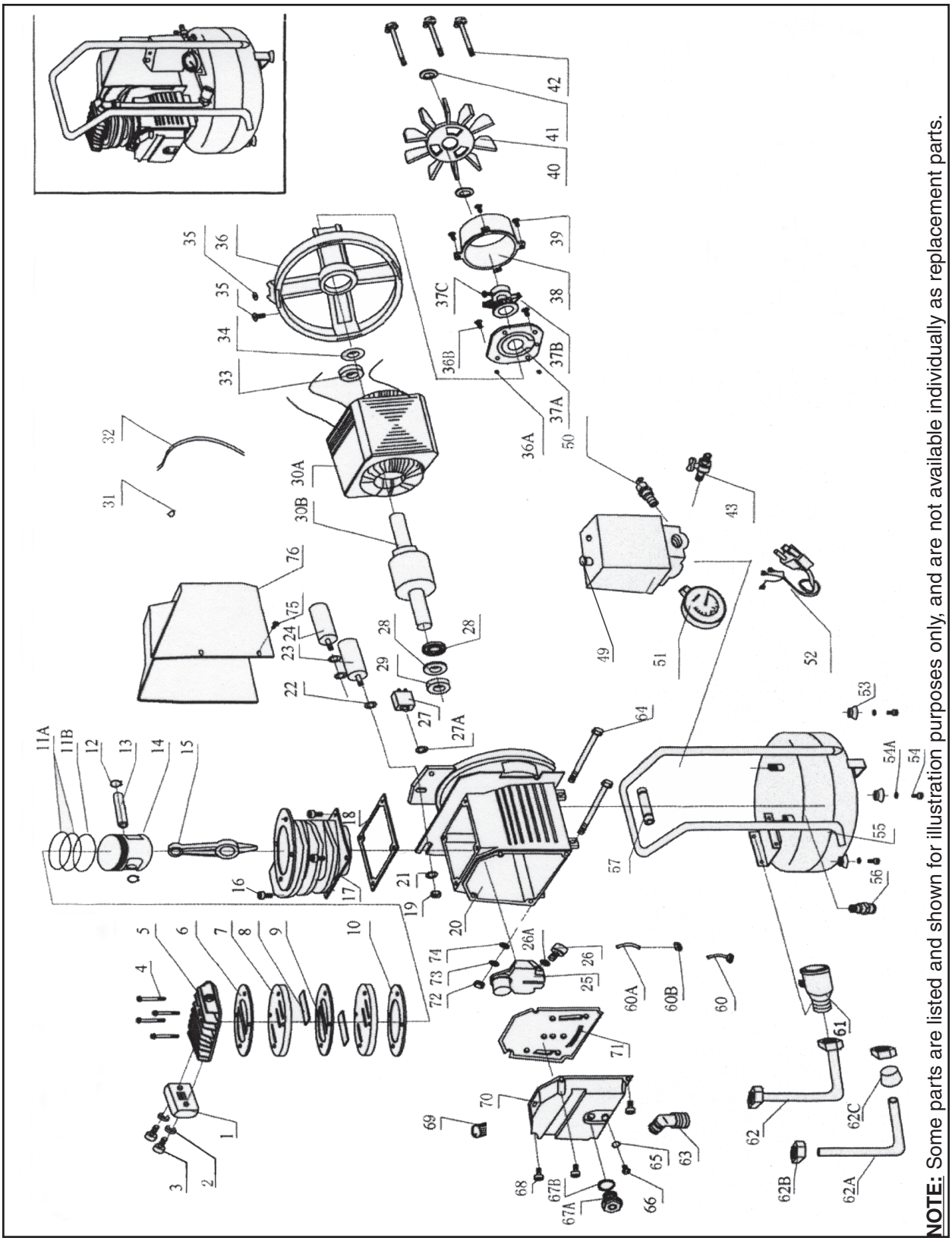
PART#	DESCRIPTION	QTY	PART#	DESCRIPTION	QTY
29	Bearing	1	67A	Oil Level Window	1
30A	Motor Stator Assy	1	67B	Oil Leveler Seal	1
30B	Motor Rotor Assy	1	68	Bolt	4
31	Connector	2			
32	Nylon Band	2	70	Crankcase Oil Cover	1
33	Bearing	1	71	Crankcase Rubber Seal	1
34	Wave Washer	1	72	Nut	2
35	Bolt	1	73	Spring Washer	2
35A	Tight Washer	3	74	Flat Washer	2
36	Ele. Motor Back Cover	1	75	Bolt	4
36A	Plastic Washer	2	76	Motor Cover	1

NOTE: Some parts are listed and shown for illustration purposes only, and are not available individually as replacement parts.

PLEASE READ THE FOLLOWING CAREFULLY

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS LIST AND ASSEMBLY DIAGRAM IN THIS MANUAL AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER OR DISTRIBUTOR MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND TO THE BUYER THAT HE OR SHE IS QUALIFIED TO MAKE ANY REPAIRS TO THE PRODUCT, OR THAT HE OR SHE IS QUALIFIED TO REPLACE ANY PARTS OF THE PRODUCT. IN FACT, THE MANUFACTURER AND/OR DISTRIBUTOR EXPRESSLY STATES THAT ALL REPAIRS AND PARTS REPLACEMENTS SHOULD BE UNDERTAKEN BY CERTIFIED AND LICENSED TECHNICIANS, AND NOT BY THE BUYER. THE BUYER ASSUMES ALL RISK AND LIABILITY ARISING OUT OF HIS OR HER REPAIRS TO THE ORIGINAL PRODUCT OR REPLACEMENT PARTS THERETO, OR ARISING OUT OF HIS OR HER INSTALLATION OF REPLACEMENT PARTS THERETO.

ASSEMBLY DIAGRAM



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